

REMARKS

Claims 28-63 are pending in the instant application. Claims 37-62 have been withdrawn by the Examiner as non-elected subject matter. Therefore, Claims 28-36 and 63 have been examined on their merits and stand rejected according to the Examiner's assertions contained in the Office Action mailed on April 19, 2007.

Claim 28 has been amended. No new subject matter has been added by this amendment. By virtue of the amendment to Claim 28, Claims 29-36 and 63, which depend on Claim 28 are also amended. In view of this amendment and the remarks set forth below, Applicants respectfully request reconsideration and withdrawal of the rejections.

Rejection Under 35 U.S.C. § 102

Claims 28-30, 33-36 and 63 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Tada et al. (U.S. Pat. No. 6,074,981). According to Tada et al., "a photocatalyst directly borne by a glass fiber cloth cannot achieve a high level of photocatalytic activity. This is because alkaline components diffused from the glass reduce the photocatalyst's crystallization property during the process of stabilizing the photocatalyst on the glass fiber." (Column 2, lines 15-20). In view of this statement, Tada et al. teaches a photocatalytic layer comprising titanium oxide doped with fluorine, or a photocatalytic layer comprising titanium oxide applied directly over a fluorine layer (column 4, lines 5-12).

In contrast, the present invention, as recited in amended Claims 28-30, 33-36 and 63, comprises a photocatalyst consisting essentially of titanium oxide that is in direct contact with the fibers. The presently claimed invention is novel over Tada et al. because Tada et al.'s photocatalyst includes fluorine, and therefore does not consist essentially of titanium oxide; or is applied in direct contact to a fluorine layer, and therefore is not in direct contact with the fibers. Therefore, Tada et al. does not teach each and every element of the invention as recited in the amended claims. Accordingly, Applicants respectfully request that this rejection be reconsidered and withdrawn.

Rejection Under 35 U.S.C. § 103

Claim 31 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Tada et al. in view of Yamaguchi (JP 2001-335343). For the reasons set forth above, Tada et al. does not teach each and every element of Claim 28; therefore, since Claim 31 depends on Claim 28, Tada et al. also does not teach each and every element of Claim 31. These shortcomings are not overcome by Yamaguchi (which is only cited by the Examiner as teaching a mean particle diameter of titanium oxide between 20 nm and 200 nm that is on a smooth glass base) because Yamaguchi does not teach a photocatalyst consisting essentially of titanium oxide that is in direct contact with the fibers.

Additionally, there is no reason cited for one skilled in the art to combine the elements in Tada et al. with Yamaguchi. A rejection under Section 103 must be supported by some reason for a skilled artisan to combine the elements in the same manner as the applicant. *KSR Int'l v. Teleflex*, No. 04-1350 at 15. The reason or motivation cited cannot be based on hindsight. MPEP § 2145. In this case, the record is silent as to any reason for one skilled in the art to combine Tada et al. with Yamaguchi. In point of fact, there is no reason to combine Tada et al. (which teaches applying titanium oxide doped with fluorine to inorganic fibers) with Yamaguchi (which teaches applying titanium oxide to a smooth glass base) because there are entirely different considerations when determining the appropriate thickness of a titanium oxide coat for a large smooth surface such as glass, as compared to thin fibers. For these reasons, Applicants respectfully request reconsideration and withdrawal of this rejection.

Claim 32 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Tada et al. in view of Baba et al. (JP 2000-072575). For the reasons set forth above, Tada et al. does not teach each and every element of Claim 28; therefore, since Claim 32 depends on Claim 28, Tada et al. also does not teach each and every element of Claim 32. These shortcomings are not overcome by Baba et al., which is only cited by the Examiner as teaching depositing a titanium oxide film via chemical vapor deposition onto a tile surface, because Baba et al. does not teach a photocatalyst consisting essentially of titanium oxide that is in direct contact with the fibers.

Additionally, there is no reason cited for one skilled in the art to combine the elements in Tada et al. with Baba et al. There is no reason to combine a reference teaching depositing titanium oxide onto a tile surface (Baba et al.) with a reference that teaches depositing titanium oxide doped with fluorine onto glass fibers (Tada et al.) because there are entirely different considerations that must be taken into account when coating a large surface, as compared to fibers. For these reasons, Applicants respectfully request reconsideration and withdrawal of this rejection.

Information Disclosure Statement

The Information Disclosure Statement dated August 18, 2005 inadvertently cited JP 11-512339. The correct citation is JP 11-512337. Applicants respectfully request that JP 11-512337, a copy of which has been previously provided, be entered as a disclosed reference and considered.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully submit that all pending claims in the instant application are patentable over the prior art and are in condition for allowance. Accordingly, reconsideration and withdrawal of the rejections and a notice of allowance are respectfully requested. Should the Examiner have any questions or concerns, the Examiner is invited to contact Applicants' undersigned attorney by telephone at 412-471-8815.

Respectfully submitted,

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